





NOAA Maritime Heritage Program photograph by Tane Casserley

Figure 1. Kodiak Archipelago.



Archiv der Hansestadt Lübeck, courtesy of Evgenia Anichtchenko

Figure 2. Certificate of purchase for the bark Kad'yak.

Figure 3. (Left) Wheel hub.

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Alaska's Submerged History: The Wreck of the Kad'yak

By Jason S. Rogers, Evgenia Anichtchenko, and J. David McMahan

Off Alaska's southcentral coast, a group of islands rises from the ocean. Rugged peaks and remote wilderness, inhabited by America's largest grizzly bears, greet the visitor here in the Kodiak Archipelago (Figure 1). Forbidding and aloof as the landscape may seem, it is more hospitable than the surrounding storm-wracked waters of the Gulf of Alaska. To some hardy spirits, however, the sea presented opportunities as well as challenges. The island's native inhabitants, the Alutiiq people, developed sophisticated marine subsistence strategies and were confident masters of the waterways.

Russian explorers were the first Europeans to arrive in Alaska, and for a time they made Kodiak their colonial capitol. The Russians too depended on the sea for their main livelihood, the export of valuable otter and seal fur. In addition to the precious cargo, Russian sailing ships carried passengers and goods between the motherland and the colonies, and knitted Alaska together along a web of sea-lanes.

Traveling by sea was not without risk—even today Alaska's stormy waters are among the most dangerous on earth. Many colonial Russian ships were lost on rocky islands, jagged reefs, or simply swallowed by raging tempests. One such vessel was the *Kad'yak*, a three-masted wooden bark built in Lübeck, Germany, in 1851. A 'bark' (also spelled 'barque') is a sailing vessel with three to five masts, where all masts are square-rigged except the aft-most, which has a fore-and-aft rig. Barks were popular because they could be operated with a smaller crew than full square-rigged ships.

The *Kad'yak* belonged to the Russian-American Company, the enterprise in charge of Russia's colonial possessions in North America. The vessel, commissioned by the company and built in the Lübeck shipyards of Hans Jacob Albrecht Meyer, had a capacity of 238 ¼ *kommerzlasten* (about 477 tons). The ship was approximately 128 feet (40 m) long, 26 feet (8 m) wide, and 19 feet (6 m) deep (*Archiv der Hansestadt Lübeck 1851*). The *Kad'yak* was initially fitted out in Kronstadt, the port of St. Petersburg, and loaded with

supplies and provisions for the colonies. On August 7, 1851, the *Kad'yak* left Kronstadt for Alaska.

After stops in Copenhagen and Hamburg (*Furuhjelm 1852*), the ship laid on its course around Cape Horn. On May 7, 1852, after a nine-month voyage, the *Kad'yak* dropped anchors at the colonial capitol of Novo-Archangelsk (Sitka). The entire ocean-going fleet in service of the Russian-American Company at that time consisted of 10 vessels. The *Kad'yak* was a major addition (Figure 2).

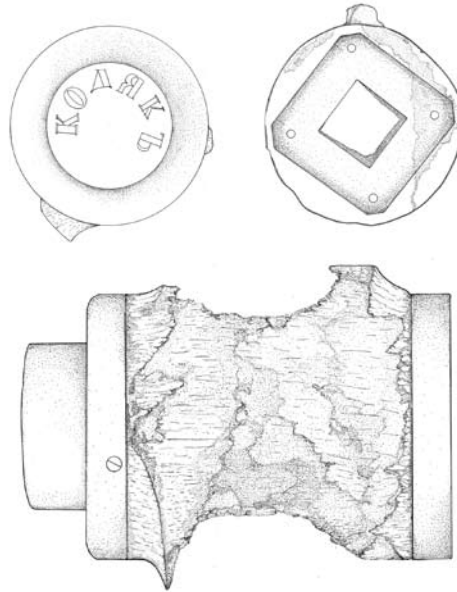
During her eight years in the service of the company, the *Kad'yak* took part in a wide array of company activities. Provisioning, trade and communications remained the main concerns of the company's authorities, and shipping routes reflected these priorities. On average, a ship sailed once a year to collect pelts along the coast of Alaska. The furs were brought to Sitka, then shipped either to the Siberian ports of Russia, or to St. Petersburg. Supplies and people were the main cargo of the company's ships on the return from Russia to Alaska.

Soon after arriving in the colonies, the ship departed for the port of Aian in



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Figure 4. Diver Steve Sellers measures the location of the hub.



Drawn by M. De Felice, East Carolina University

Figure 5. Drawings of the hub of the ship's wheel.

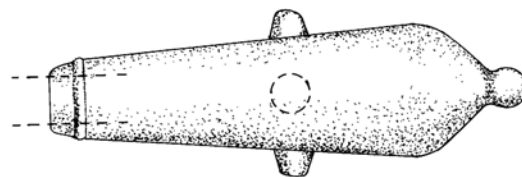


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Figure 6. One of the Kad'yak's four cannons.

Figure 7. Several of the Kad'yak's cannons were located and documented.

Drawn by F. Cantelas, East Carolina University



eastern Siberia to deliver the cargo she carried for this city (*Records of the Russian-American Company 1852*), and to take workers returning to Russia (*Russian-American Company 1853*). Many of the company's employees came to America on term contracts hoping to make capital that would allow them a better life upon their return to their homeland.

In the beginning of 1853, the Chief of the Port at Sitka, Johan Furuhielm, took the *Kad'yak* on a trading voyage to California and the Sandwich Islands (Hawaii), returning on May 1 (*Russian-American Company 1854*). From June 1853 until the final voyage in 1860, the career of the ship is covered in eight surviving logbooks, which also provide many details about the ship (*Records of the Russian-American Company 1853-59*). The crew of the *Kad'yak* varied from 25 to 30 people and included a captain, two officers, one supercargo, two boatswains, 13 sailors, six to eight hands, usually Native Alaskans, and occasionally some cabin boys. The *Kad'yak* was equipped with two chronometers, compasses, and several rowing boats. Four to six cast iron cannons were carried during some voyages (*Figure 6-7*). When loaded, the vessel drew 14 feet of water, and had an average speed of about four and a half knots.

The cargo and the number of the passengers varied depending on the destination. On the inter-colony voyages (June 19-September 28, 1853 and July 20-September 25, 1854), the ship followed the route Sitka - Unalaska - St. Michael Redoubt - Unalaska - Sitka

and carried timber, food supplies and up to 15 passengers. The company's officials on business trips, workers going to their service destinations, seminary students anxious to be reunited with their families during the school break, a Lutheran pastor visiting believers in remote Alaska outposts, and traveling Native Americans all ventured the North Pacific and Bering Sea aboard the *Kad'yak*.

Starting in 1853 the *Kad'yak's* main destination was San Francisco, where the Russian-American Company purchased most of its food supplies, and where a new commercial opportunity arose in 1852: the sale of ice. The ice was used for food refrigeration and other needs of the ever-increasing gold rush population. Before 1852, ice for San Francisco was carried around Cape Horn from New England. Despite the fact that more than half of the ice melted during the journey, the trade was still profitable. A joint venture with a San Francisco banker was formed to exploit this new commercial opportunity.

At first ice was collected from Swan Lake near Sitka, but the mild winter and rains of southeastern Alaska often interfered with company commercial planning, and Kodiak became an alternative place for ice supply. Here ice was harvested from Icehouse Lake on Woody (Lesnoi) Island (*Keithahn 1945*).

Leaving Kodiak on March 30, 1860, bound for San Francisco with a full cargo of ice, the *Kad'yak* ran aground on a previously unknown pinnacle of rock. The crew of 25 abandoned ship, and fortunately no lives were lost in the



NOAA Maritime Heritage Program photograph by Tane Casserley

Figure 8. Alaska State Archeologist Dave McMahan surfaces from a dive on the *Kad'yak* wreck site.

accident. Captain Illarion Archimandritov, a skipper with two decades of service to the company, stayed aboard until the last moment. Even when the ship laid on its side he remained close by, looking for ways

to save as much as possible from the ship (*Russian-American Company 1861*). The vessel was kept afloat for several days by her load of ice, and drifted towards Spruce Island, just north of Kodiak. Here in Icon

Bay she finally settled to the bottom, where she lay undisturbed for over 140 years (*Figures 8-10*).

Over time, the wreck faded from memory. Only a few obscure histori-



Photograph by Steve Sellers, East Carolina University

Figure 9. Archeologist Tane Casserley prepares to dive on the *Kad'yak* wreck site.



NOAA Maritime Heritage Program photograph by Tane Casserley

Figure 10. Archeologist Evguenia Anichtchenko ascending from the *Kad'yak* wreck site.

cal references remained to tantalize researchers. Alaskan archeologist Michael Yarborough became interested in the ship in the 1980s, and collected information about her wrecking. Several

early attempts to locate the vessel were unsuccessful. Through Yarrowbrough, Dr. Bradley Stevens of the National Oceanic and Atmospheric Administration (NOAA) Fisheries Research Center in Kodiak learned of the *Kad'yak's* story. Stevens took up the hunt, and by deciphering early Russian maps and survey reports he came up with a promising search area.

In the summer of 2003, a group of divers and researchers finally located the *Kad'yak's* remains, 80 feet below the surface of Icon Bay. Plans were made to explore the site and document surviving parts of the wreck. In the interim, East Carolina University graduate student Evguenia Anichtchenko combed libraries and archives in Washington D.C., St. Petersburg, Lübeck and elsewhere, searching for written evidence pertaining to the vessel. Among historical sources, Anichtchenko uncovered important documents such as the *Kad'yak's* surviving logbooks and the certificate of purchase.

A three-week site investigation took place in the summer of 2004, funded by grants from the NOAA and the National Science Foundation, and supported by the Kodiak Historical Society, the Baranov Museum, the Alutiiq Museum and the State of Alaska Office of History and Archaeology. The team of underwater archeologists, historians, and volunteers documented the remaining hull structure, recorded significant objects, and mapped the entire site (Figure 11). Large items such as cannons and anchors were measured and documented on-site (Figure 6). A number of small diagnostic artifacts were recovered

Figure 11: Map of the *Kad'yak's* remains, with an outline showing the approximate shape of the vessel.

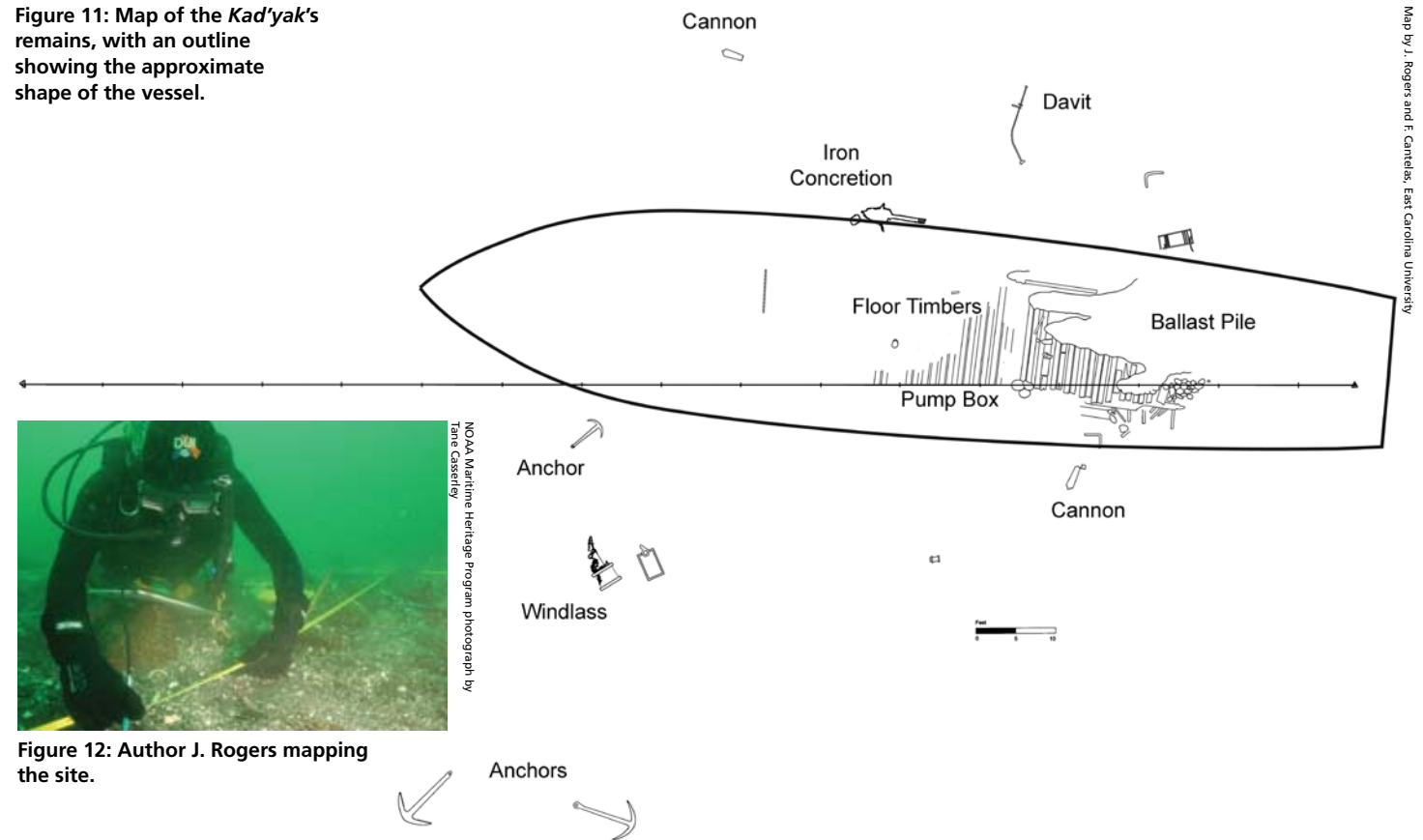


Figure 12: Author J. Rogers mapping the site.

for conservation and eventual public display. One of these artifacts, the hub of the ship's wheel, is inscribed with the vessel's name and thus proves the identity of the wrecked ship (Figure 3-5). The artifacts remaining on the site, including remnants of the vessel, are owned by the State of Alaska and protected by state law against unauthorized disturbance.

The *Kad'yak* was a hard-working vessel plying difficult waters; her wreck site contains a wealth of information and evidence pertaining to shipboard life from the period. Careful examination and

interpretation of these material remains can fill in many details about life and culture in the Russian colonies, and paint a richer picture of Alaska history (Anichtchenko 2005). The distribution of artifacts and structure throughout the site also make it possible for archeologists to recreate the final sinking and site formation processes.

The results of the *Kad'yak* investigation revealed two main areas of remains spread in a linear pattern across the seabed (Figures 11-12). Anchors and capstan remnants indicate the bow, the

ballast pile and midships hull show where the ship's deepest portion settled, while rudder and steering gear remains denote the stern. The team was thus able to determine the wreck's orientation, and concluded that the vessel initially grounded on a high reef. As wind, waves, and current pushed the ship into deeper water between rocky outcrops, the stern broke away and came to rest some distance from the rest of the vessel (Cantelas et al. 2005).

A further important result of the project was positive knowledge that a

historic shipwreck can survive in the harsh conditions of Alaska's unforgiving maritime environment. Despite storms, tsunamis, and ice, the remains of ancient ships await researchers in the cold depths of the northern oceans. Future underwater discoveries will play an important role in understanding Alaska's history and heritage.

The story of the *Kad'yak* reminds us that throughout history, seaside Alaska communities have been heavily dependent on maritime transport and marine resources for essential aspects of livelihood. As Alaska has more coast-

line than the rest of the United States combined, it is no surprise that even today a large percentage of the state's population lives near the ocean. The *Kad'yak* shipwreck site is significant as a physical remnant of Alaska history, and as a symbolic reminder of the importance of maritime culture for this region.



Photograph by Tim Runyan, East Carolina University

Figure 13. Tane Casserley and Steve Sellers with the wrecked vessel's bilge pump tube.

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